

marking the plaintext message, which is written with the plaintext alphabet, as a sequence of correspondingly marked vertices on the graph;

identifying a sequence of edges corresponding to the sequence of vertices, so that a first edge in the sequence of edges emanates from a first vertex in the vertex sequence, and points to a second vertex of the vertex sequence, and a second edge emanates from the second vertex and points to a third vertex, and so forth, so that the k-th edge emanates from the k-th vertex in the vertex sequence, and points to the (k+1)th vertex of the vertex sequence; and

forming a sequence of ciphertext letters that corresponds to the sequence of edges, and referring to that sequence as the ciphertext message.

35. (New) A method for decrypting the ciphertext message of claim 34, comprising:

identifying the sequence of edges that was used to construct the ciphertext message on said graph, by starting from the first vertex in the vertex sequence, and identifying each successive edge according to the letter sequence of the ciphertext;

re-constructing the sequence of vertices which are pointed to by the sequence of edges; and

listing the plaintext letters that mark those vertices, the list constituting the reconstructed plaintext message.

36. (New) A method for constructing the graph of claim 34, comprising:

creating the edges from every vertex so that whichever is the next letter in a sequence of plaintext letters constituting the plaintext message, there is an edge leading into a vertex marked by that next letter.

37. (New) A method for constructing the graph of claim 34, comprising:

defining a zone of vertices as a set of vertices from the plurality of vertices marked by a same letter from the plaintext alphabet and interconnected by edges so that from each vertex of the zone there is a sequence of edges leading to any other vertex of the zone, so that the sequence of edges points only to vertices of the zone; and

providing sufficient edges in every zone of vertices so that whichever is a next letter in the plaintext message, there is an edge from at least one vertex of the zone of vertices leading into a vertex marked by that next letter.

38. (New) A method for adjusting a plaintext message to be encrypted using the graph constructed in claim 37, comprising:

writing the plaintext message with an $(n-1)$ letters alphabet, where n is a number greater than two;

introducing an n -th letter in between any sequence of repeat letters in the plaintext message, thereby forming an n -letter version of the plaintext message so that there are no sequences of repeat letters in the n -letter version of the plaintext message; and

replacing any letter in the repetition-free plaintext, with a sequence of any number of same letter, thereby constructing a larger, repetition-induced plaintext.

39. (New) A method to recover the original plaintext from a repetition-induced plaintext constructed as in claim 38 comprising:

replacing all sequences of repeat letters with a single same letter; and